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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,479	05/24/2006	Yong-Geun Hong	CU-4833 WWP	4340

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EXAMINER
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SARWAR, BABAR

ART UNIT	PAPER NUMBER
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2617

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/580,479	<b>Applicant(s)</b> HONG ET AL.	
	<b>Examiner</b> BABAR SARWAR	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to **claims 1-9** have been considered but are moot in view of the new ground(s) of rejection.
2. Claim Rejections - 35 USC § 112, second paragraph concerning **Claims 1, 2, 5** are withdrawn.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**Claims 1-9** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The amended **claim 1** recites the term "**directly**" which is not recited or stated anywhere in the submitted Specification. Thus the claims contain new matter. The specification does disclose handoff of a mobile node using layer 3 mobility process (Page 3: Para 50-57).

**Claim 1** rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The limitation in **claim 1, "directly"** is not recited in the submitted specification, and thus does not enable one of ordinary skill in the art to determine the scope of the claims.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 1** rejected under 35 U.S.C. 103(a) as being unpatentable over Yegin et al. (US 7286671 B2) in view of Koodli et al. (US 6930988 B2), hereinafter referenced as Yegin and Koodli.

Consider **claim 1**, Yegin discloses a method for performing mobile IPv6 fast handover based on an access router (AR) (**Col. 1 line 58-63, Yegin discloses a client changing its point of attachment**). Yegin discloses that a) **[[if]]** when a mobile node (MN) completes a layer 2 handover (**Col. 6 lines 45-50, Fig. 2 elements 135 and 145 where Yegin discloses the change of radio links from an access point of FR1 to an access point of FR2, therefore a layer 2 handover**), a new access router (AR) (**FR2**) receiving a modified Router Solicitation (RS) **[[RS]]** message directly from **[[a]]** the mobile node (MN) (**Col. 6 lines 59-61, Fig. 2, where Yegin discloses an RS being sent to a new access router by a client directly via an access point**). b) detecting

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layer 3 movement of the mobile node (MN) at the new access router (AR) based on the received\_modified RS message transmitted from the mobile (MN) node ~~[[in]]~~ to the new access router (AR) **(Col. 6 lines 63-64, where Yegin discloses that the access routers send their router advertisements (RA) in response to RS from clients); c)** ~~[[if]]~~ when the mobile node does layer 3 movement, the new access router (AR) generating a new Care of Address (CoA) ~~[[of]]~~ for the mobile node (MN) **(Col. 6 lines 64-65)**, e) transmitting a modified Router Advertisement (RA) message, which corresponds to the modified RS message transmitted from the mobile node (MN), directly to the mobile node (MN) ~~[[in]]~~ from the new access router (AR) **(Col. 6 lines 63-64)**.

Yegin does not specifically discloses that performing Duplicate Address Detection (DAD) ~~[[in]]~~ at the new access router (AR) to inspect uniqueness of the generated CoA. Koodli discloses performing Duplicate Address Detection (DAD) ~~[[in]]~~ at the new access router (AR) to inspect uniqueness of the generated CoA. Koodli discloses **(Col. 7 lines 11-19, where Koodli discloses an access router performing actions substantially similar to a duplicate address detection (DAD), therefore inspecting uniqueness of the generated (CoA) at the new access router)**.

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Yegin by specifically providing the step of performing Duplicate Address Detection (DAD) in the access router to inspect uniqueness of the generated CoA, as taught by Koodli, for the purpose of avoiding the handover latencies as discussed in Col. 1 lines 11-48.

Consider **claim 2**, the combination teaches everything claimed as implemented above (see claim 1). In addition, Yegin specifically discloses that wherein the step a) includes the steps of: a1) receiving a re-association request message from the mobile node (MN) at an access point; and a2) transmitting a re-association reply message corresponding to the re-association request message to the mobile node (MN) from **[[in]] the access point (Col. 6 lines 45-50, Fig. 2 elements 135 and 145 where Yegin discloses the change of radio links from an access point of FR1 to an access point of FR2, therefore a layer 2 handover i.e. re-association process is performed with the new access point of the new access router).**

Consider **claim 3**, the combination teaches everything claimed as implemented above (see claim 1). In addition, Yegin specifically discloses that a3) receiving the modified RA message transmitted from the access router (AR), using the CoA specified in the modified RA transmitted from the access router (AR)**[[,]] as a network interface address of the mobile node (MN) without DAD, and performing binding update [[in]] at the mobile node (MN) (Col. 6 lines 66-67, Col. 7 lines 1-4).**

Consider **claim 4**, the combination teaches everything claimed as implemented above (see claim 1). In addition, Yegin specifically discloses wherein, in the step a), the access router (AR) receives the modified RS message from the mobile node (MN) as soon as the layer 2 handover is completed **[[in]] at the mobile node (MN) (Col. 6 lines 59-61, Fig. 2).**

Consider **claim 5**, the combination teaches everything claimed as implemented above (see claim 4). In addition, Yegin specifically discloses wherein, the step b), the

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movement of the mobile node (MN) in the layer 3 is detected at the access router (AR) by comparing a neighbor cache value of the access router (AR) and a layer 2 identifier of the mobile node (MN) included in the modified RS message, which is transmitted from the mobile node (MN) **(Col. 6 lines 63-64, where Yegin discloses that the access routers send their router advertisements (RA) in response to RS from clients).**

Consider **claim 6**, the combination teaches everything claimed as implemented above (see claim 5). In addition, Yegin specifically discloses wherein the modified RS message includes a flag which signifies the generation of the CoA (CoA Generate) **(Col. 6 lines 43-67, Col. 7 lines 1-13).**

Consider **claim 7**, the combination teaches everything claimed as implemented above (see claim 6). In addition, Yegin specifically discloses wherein the modified RA message includes a flag which signifies the generation of the CoA (CoA Generate) **(Col. 6 lines 43-67, Col. 7 lines 1-13).**

Consider **claim 8**, the combination teaches everything claimed as implemented above (see claim 7). In addition, Yegin specifically discloses wherein the modified RA message includes **[[a]]** the CoA which is generated in the step c) **(Col. 6 lines 43-67, Col. 7 lines 1-13).**

Consider **claim 9**, the combination teaches everything claimed as implemented above (see claim 8). In addition, Yegin specifically discloses wherein the modified RA message includes a flag which signifies that the CoA is included in a prefix (**Col. 6 lines 37-41**).

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BABAR SARWAR whose telephone number is (571)270-5584. The examiner can normally be reached on **MONDAY TO FRIDAY 09:00 A.M -05:00 P.M.**



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NICK CORSARO can be reached on (571)272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BS/

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